IN THE UNITED STATES DISTRICT COURT FOR THE WESTERN DISTRICT OF MICHIGAN Northern Division

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GREAT LAKES EXPLORATION GROUP LLC

Plaintiff

Civil Action No. 1:04-CV-375

HON. ROBERT HOLMES BELL

The Unidentified, Wrecked and (For Salvage-Right Purposes), Abandoned Sailing Vessel, her tackle, apparel, appurtenances, cargo, etc. located within a circle having a radius of 3.5 statute miles, whose center point is at coordinates 45° 32.8' North latitude and 86° 41.5' West longitude,

In Rem

Defendant.

and

v.

MICHIGAN DEPARTMENT OF HISTORY, ARTS AND LIBRARIES AND MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY,

Intervening Defendants

AFFIDAVIT OF WAYNE LUSARDI

STATE OF MICHIGAN)
)
COUNTY OF)

Now comes Wayne Lusardi and, being first duly sworn, states as follows:

1. I am the Michigan State Marine Archaeologist and previously submitted an affidavit in this matter in support of Intervenors' Motion to dismiss (Docket 10). I submit the

current affidavit on the basis of personal knowledge and would testify in accord with this affidavit if called upon to testify.

- 2. I have read the September 27, 2005 affidavit of Mr. Steven J. Libert in which he represents that the three scattered circular areas designated in the proposed Second Amended Complaint, provide "a description of the defendant and the locational information of the Defendant with as much precision as practical."
- 3. The proposed complaint also alleges that Plaintiff has conducted extensive research, search and survey with respect to the shipwreck.
- 4. Despite the asserted investigations, the affidavit provides no information concerning the actual condition of the wreck that it has found, and no information whether Plaintiff has conducted or merely anticipates conducting salvage. It does not identify anything that has been salvaged or rescued from marine peril or present anything to the court as evidence of rescue.
- 5. The proposed complaint identifies geographic regions rather than a wreck. The only description that relates to the purported wreck is a description of the vessel as it existed in 1679. Rather than provide any information concerning a Defendant wreck or any objects that the Plaintiff has rescued, the affidavit identifies hypothetical debris fields that Plaintiff proposes to investigate on the hypothesis that the named original vessel may be scattered into these areas because it was wooden and subject to scatter.
- 6. As expressed in my affidavit in support of the Intervenors' Motion to Dismiss (Docket 10), Mr. Libert previously represented to me that they had located a wrecked vessel shown in the photos attached to my affidavit. That object cannot be in all three circles identified as the location of the Defendant. The compliant does not provide the precise location of that

object or of the hull, apparel, armaments, cargo or contents of the alleged wreck that may be known by Plaintiff as a result of its extensive research, search and survey.

- 7. With contemporary Global Positioning System (GPS) equipment, it is possible to locate objects within centimeters and customary to do so to within less than a meter. Such data is generated when using side scan sonar equipment for marine searches and is commonly used when documenting archaeological sites. It is used, along with other techniques, such as photography, to obtain data needed to prepare site maps and to document the location and provenance of known historic artifacts and sites.
- 8. It is clear from the affidavit that the geographic areas provided represent, not the location of a wreck, but proposed search areas, where Plaintiff believes it is probable additional artifacts may be found.
- 9. Identification of three proposed search areas does not provide the Intervenors with a reasonable opportunity to investigate the Defendant this fall. Designation of three sets of coordinates with half-mile radii both assists and hinders search methodologies. Because the exact latitudes and longitudes of the defendant so far as they are known were not provided, no investigation of archaeological sites can occur until objects are located on the bottom of the given search areas. The coordinates provided by the first Amended Complaint provided a search area of 38.5 miles, but implied a single target. With three sets of coordinates, the search area can be reduced to 2.36 square miles, but there are now a minimum of three targets. Since none of these targets has been described, finding exact locations that need to be investigated based on the interpretation of sonar data will be difficult. For example, when searching for a target known to be a piece of wood 12 inches in diameter, 15 feet in length, embedded at an angle in the lake bottom, all acoustic images that do not conform to this data can be eliminated, greatly reducing

the potential targets requiring investigation. Without additional information, it will be necessary to inspect virtually every image that could possibly be a buried or exposed fragment of a ship or its cargo to speculate whether the find corresponds to what Plaintiff has in mind.

- 10. Further, the necessity of conducting a search with sonar requires the mobilization of significant equipment and personnel from across the state in the face of ever-changing lake and weather conditions. A search for objects located on Great Lakes bottomlands can only be conducted when personnel, equipment, vessels, and optimal weather conditions coincide. An offshore search requires a vessel capable of carrying, deploying, and operating remote sensing instruments such as side scan sonar. The vessel must have an operator knowledgeable in conducting controlled searches using global positioning systems (GPS), and only trained technicians can operate the search instruments. Sea conditions greater than 2-3 feet can inhibit side scan surveys, creating anomalous data or gaps in the search grid.
- 11. When targets are located by sonar and appear on the sonar screen, they must be interpreted and characterized, and their positions exactly plotted so they can be reacquired. Generally, a target is then physically marked through buoy deployment before divers can investigate. When conditions are optimal, technicians and personnel are in place, and vessels and equipment operate properly, a search area equivalent to 2.36 square miles can be surveyed in a couple of days.
- 12. The combination of the factors that limit the ability to search converged so that during the entire month of September, Intervenors were only able to conduct two days of search within the original coordinates and to cover approximately one square mile of search area. Their search focused upon finding the artifact disclosed in the photos Mr. Libert provided that purportedly showed the wreck. When numerous targets require acquisition, and bottom

conditions inhibit easy identification and interpretation of potential targets, the time required to search an area increases dramatically. Conditions in northern Lake Michigan and Green Bay through the fall and winter, including October, are even less likely to produce favorable conditions for search operations.

are provided, investigation can commence without extensive search efforts. A vessel capable of transporting divers (at least two in a team) and their equipment is still required, though remote sensing instruments may not be needed to characterize the archaeological sites. A visual and photographic survey of the targets will usually provide considerable information from which hypotheses can be derived regarding the identification and interpretation of objects located on the lake bottom. A trained maritime archaeologist familiar with colonial ship building techniques and identification of shipwreck pieces and material culture must be on site to personally investigate each target.

Wayne Lusardi

FURTHER AFFIANT SAYETH NOT.

Subscribed and sworn to before me this 10th day of Oct , 2005

Janice M Hall , Notary Public Alpena , County, Michigan

My Commission Expires: 9/21/06

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